Issues in Children's Health

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To understand the implications of the emerging health issues on children, we first need to appreciate the circumstances of children in this country today and the major determinants of their health and well being. We then need to address children's health issues in light of the changing marketplace for personal health services.

The total population of children and youth in the United States is about 70 million, representing less than a third of our population. Several generalizations about this pediatric population are important to keep in mind.

First, when comparing this child population to those over 65, the ratio of children to those older adults has changed from about a 10:1 ratio in the year 1900 and is approaching a 2:1 ratio today. These older adults register and vote in the highest proportions of any age group. They also have the greatest expenditures for health care and personal health services.

The smaller number of children will be expected to support the greater number of retirees when the children of today become part of the work force. This work force will consist of about three former children for each retiree early in the next century, compared to 15 to 18 per retiree in 1950. Two of these three children, now workers, will be from minority groups and will have grown up in poverty.

The population of children is significantly more ethnically diverse than ever before in this century. In 1910, after a wave of

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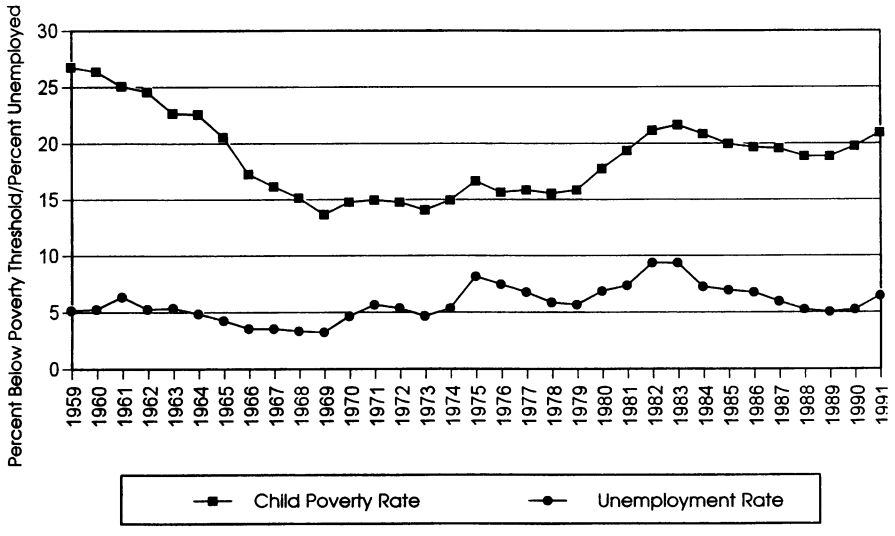

FIG. 1. Annual poverty rates for children under 18 in families, and unemployment rates, 1959 through 1991. Sources: US Bureau of the Census, *Poverty in the United States: 1991*, Current Population Reports, Series P-60, No. 181, Washington, DC: 1992, p. 4; US Department of Labor, Bureau of Labor Statistics, *Employment and Earnings*, Washington, DC: USGPO, October 1992, p. 7.

immigration from Europe, 84% of the children in this country were still non-Hispanic, white, native born. By 1950, following a period of relatively constant low levels of migration, 87% of the children were non-Hispanic, white, native born. By 1990, however, this figure had fallen to 69%. Compared to 1950, the change in diversity of the population of children in this country is now sixfold greater than what resulted from immigration at the turn of the century and the arrival of the Ellis Island generation.

In the 1970s and 1980s, 17 million legal immigrants entered the United States, more than double the number that arrived in the preceding four decades. In 1990 there were at least 5 million immigrant children; at current rates of immigration this will rise to about 9 million in 2010 and will represent about 22% of the school-age population.

Children are disproportionately poor. The pervasiveness and structure of child poverty in the United States relates to so many education, health, and welfare problems that some specifics require comment.

The poverty rate for children currently is high (Fig. 1). In recent

years it has tended to mirror the employment rate. Because of that association, there needs to be a mechanism to increase Medicaid and some welfare budgets in times of downturns in the business cycle, whether these budgets are run by the states or the federal government. The poverty rate for children is significantly greater than for adults, and the gap between children and adults is increasing.

The striking feature of poverty in this country is the dramatic increase in its prevalence in young families. Forty percent of the total population living in poverty are children, yet they make up only 26% to 28% of our population. The proportion living in poverty is increased in white, non-Latino children as well as in Latino and black children, and among children of married couples as well as children of never-married women and divorced women. It has increased significantly in families where only one parent is employed full time.

The implications of this are dramatically demonstrated in terms of health insurance. For poor and low-income families, the number of children without health insurance continues to grow at an accelerating rate. The loss of private insurance by working, low-income parents (within 200% of the poverty line) is dramatic. The impact of the loss is worse if only one parent works and among single parents, especially in the latter case, because the wage earner is usually a woman who works for lower wages.

Since 1990, the loss of private insurance coverage for children with parents earning between $25,000 and $75,000 per year has also been increasing. Thus, despite the affordability of children's health care compared to adults, about 10 million children and youth are uninsured, and millions more are underinsured.

In 1992 about 15% of all children under age 18 had no insurance throughout the entire year, and 20% of poor children were uninsured despite Medicaid expansions. The decrease in private health insurance coverage accelerated in the last few years and, under state Medicaid waiver programs, there has been some slight movement away from covering children.

Another important consequence of poverty and diversity relates

to education. Over the past 25 years, in our public primary and secondary schools, the proportion of black students has remained at about 30%, but there has been about an 80% increase in Hispanic students. These students now make up about 20% of the public school student body. From 1980 to 1990 there was a 26% increase in the number of public primary and secondary school students who have difficulty speaking English. And over this decade there was also a 40% increase in the number of all school children in public schools who were from low-income families. However, poor minority students are not evenly spread throughout the public school system. In the 20 cities with the greatest concentration of urban poverty, over 90% of the primary and secondary school students are from minority groups. In urban centers these changes have overwhelmed the significant increases that have been made in expenditure per pupil, improved teacher-pupil ratios, regular and special education classes, and improved teacher salaries.

The school issue is an important one. The primary goal for children's quality of life is to facilitate children's ability to make the most of their educational potential in the schools and at home.

The fourth general point I would like to make about children's predicament today is that profound changes have occurred in the formation, structure, and function of the family. Significant numbers of never-married and divorced women with children are heads of households. There has also been a substantial increase in the proportion of two-parent families with children, in which the adults are not formally married, and two-parent families in which both parents work, leaving less time for parenting. With very few exceptions, these trends are widespread in developed countries throughout the world at all income levels.

In the majority of two-parent households of married or unmarried adults and in single-parent households, women work outside the home. Without the income from these working women, the proportion of children living in poverty would be increased significantly above what it is now. Children currently account for about 40% of the population living in poverty.

As a consequence of these changes, the care of infants and children by adults other than parents is omnipresent in our society at all income levels. The providers of such care are predominantly women who work for low wages and are usually untrained in terms of knowledge of child development other than what they have accrued from their own experiences.

Evidence is accumulating that the vast majority of child care provided within this country is poor and compromises the ability of young children, particularly poor young children, to enter school ready to learn. In addition, some day-care facilities are unsafe for children.

Some of these changes, and other changes in the medical care marketplace, are affecting the use of medical and surgical services by children. First, uninsured children receive less care for acute illness, not just less preventive care. Low-income children (within 200% of the poverty line) and poor children are significantly less likely to have the usual source of routine illness care. They are less likely to receive care in their private physicians' offices, more likely to receive health care in clinics run by pediatric faculty and house staff in academic health centers. These children are twice as likely as the insured, affluent children to be hospitalized for conditions that could have been treated in the ambulatory setting if the children's families had brought them to the attention of physicians in a timely manner as part of a stable, continuing care relationship. In addition, the increased prevalence of a variety of problems correlates directly with low socioeconomic status (Table I).

Not only has the frequency of illness increased, so too has the severity of illness when it occurs (Table II). These observations have significant implications for managed care of low-income populations.

Underinsurance is a related problem. It affects families in many income groups. It is characterized by little or no coverage of preventive care or routine ambulatory care. The majority of underinsured children do not qualify for Medicaid because their family income is above the poverty level (about $12,000 for

TABLE I
RELATIVE FREQUENCY OF HEALTH PROBLEMS IN LOW-INCOME CHILDREN COMPARED TO OTHER CHILDREN

Problem	Frequency
Low birth weight	Double
Teenage	Triple
Delayed immunization	Triple
Asthma	Significantly increased
Bacterial meningitis	Double
Rheumatic fever	Double-triple
Lead poisoning	Triple

a family of three), and they are not covered by their parents' employer-based insurance. The average out-of-pocket charges for this group (with incomes between 250%-300% of the poverty line) are 10 times those reported for children of more affluent, fully insured families. These families also tend to neglect preventive services and delay needed ambulatory care. Managed-care programs are particularly attractive to this group.

Children's health is affected by the proportion of monies spent on providing health care for children. Children's individual annual expenditures are, on the average, 20% of those of people over 65 and 60% of those between 21 and 65. Expenditures for children's personal health care represents only about 14% of the total of all personal health care expenditures in the United States. That tail is not going to wag the dog in terms of movement in the health care system.

TABLE II
RELATIVE SEVERITY OF HEALTH PROBLEMS IN LOW-INCOME CHILDREN COMPARED TO OTHER CHILDREN

Problem	Increased Severity
Neonatal mortality	1.5×
Postneonatal mortality	2×–3×
Accidental deaths	2×–3×
Disease-related deaths	3×–4×
Complications of appendicitis	2×–3×
Diabetic ketoacidosis	2×
Complications of bacterial meningitis	2×–3×
Lost school days	40% more
Severely impaired vision	2×–3×
Severe iron-deficiency anemia	2×

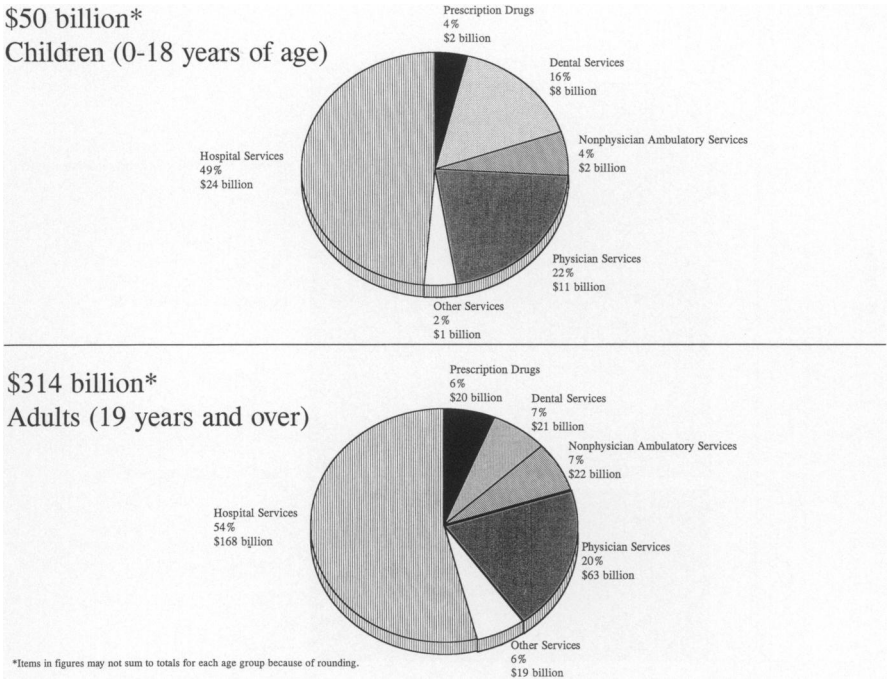

FIG. 2. Health care expenditures by type of service, National Medical Expenditure Survey (NMES), 1987. Source: Agency for Health Care Policy and Research, 1987 NMES household survey.

Hospitalization rates also reflect the status of children's health. In general, nationally the rate of hospitalizations and the length of stays have been declining for children as well as adults, although the rate of decline in children has been significantly less. Over the last two decades, inpatient days have decreased by about a third overall in the country, and most of this has occurred in the last 5 years. Currently, less than 8% of the total acute hospital discharges are children. About 70% of the admissions are for chronic, subspecialty related conditions; I would estimate that a disproportionate number of the remaining 30% are for acute problems presenting in low-income children, and many of these admissions would be avoidable if a stable source of primary care was available. However, despite those distinctions, although hospital admissions of children are few relative to adults, the proportion of expenditures for hos-

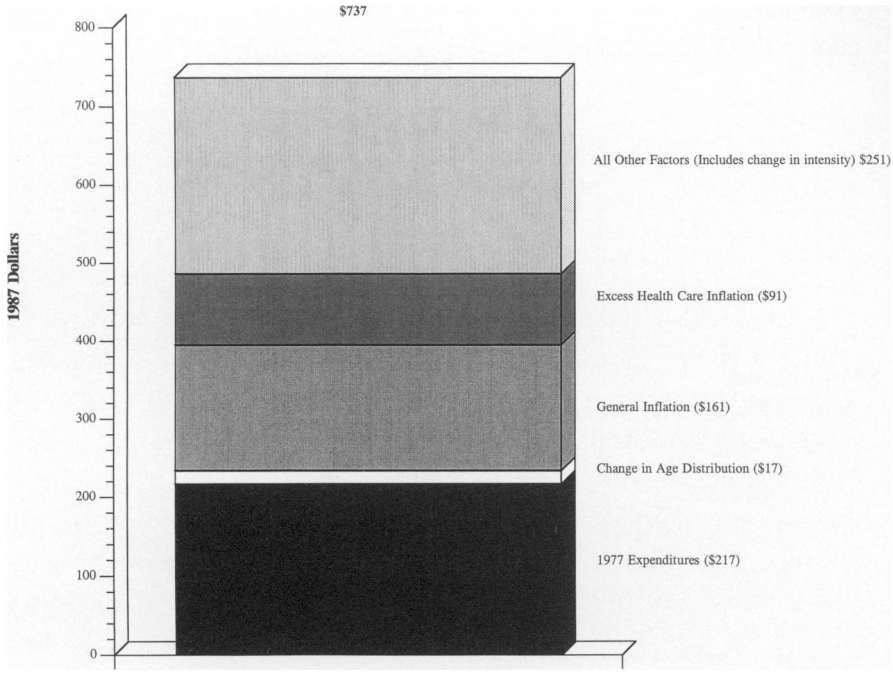

FIG. 3. Factors accounting for growth in per capita expenditures (in billions of dollars) for health care for children, 1977 to 1987. Sources: Agency for Health Care Policy and Research, 1977 National Medical Care Expenditure Survey (NMCES) household survey; Agency for Health Care Policy and Research, 1987 National Medical Expenditure Survey (NMES) household survey.

pital and physician services are similar in children and adults (Fig. 2).

The sources of growth in health care expenditures that have characterized modern medicine over the last quarter of a century are also applicable to children (Fig. 3). This is put in terms of intensity of care, the change in age distribution, general inflation, and excess health care inflation. The increase in expenditures related to intensiveness of care of infants resembles proportionately the increase in persons 65 years of age and older.

To put this to even sharper relief in regard to infants, it is not usually appreciated that the annual expenditures in the United States for caring for low-birth-weight infants is more than double what it costs for caring for all adults and children with AIDS in the United States in a year.

TABLE III
FACTORS IN CHANGE IN EXPENDITURES BY AGE, 1977 TO 1987

Age Group	Change in Aggregate Expenditures (%)	Change in Per Capita Expenditures (%)	Change in Population (%)
0–18	234.00	240.00	−2.00
19–64	207.00	158.00	19.00
65 or more	383.00	281.00	27.00

Table III illustrates the aggregate increase in expenditures. The problem is the same in children's hospital care as it is for adults.

Currently, what is happening in regard to health and medical services for children around the country? There is a great deal of variation across the country in how many children receive care through managed-care organizations, in the types of programs offered, and in the structure of the managed-care organizations themselves. My observations are based primarily on a variety of clinical impressions from conversations with managers of health care organizations, from physicians, and with patients, supplemented by some of the published literature.

The good news for children is that recruitment of corporate employees with young families is a priority for a number of for-profit and nonprofit managed-care organizations. This population of young families with children represent opportunities for low use and low cost of medical services over potentially long periods of time. Further, compared to alternative insurance plans, capitated plans tend to offer more-complete coverage for well-child care and preventive services.

The bad news is that a variety of quality problems are emerging. Because of the low frequency of serious illnesses in children relative to adults, children with a variety of serious medical and surgical disorders are increasingly not receiving prompt, appropriate referrals to pediatric, medical, and surgical specialists or hospitalizations in the most appropriate hospitals. In addition, many services for children are not provided, are provided poorly, or are difficult to access; these range from anticipatory guidance for development and behavioral disorders of young children to general health care for adolescents.

Further, most measures used by managed-care organizations to monitor quality of care or quality of care per expenditure relate to adults and are often inappropriate for children of different ages. The few that relate to children, such as immunization rates, are a poor reflection of the overall quality of the care provided.

These problems are exacerbated greatly in state Medicaid managed-care programs. The contracts that states are letting to provide care for poor children are egregiously deficient in monitoring whether the services being contracted for are being made available in anything approximating the requirements of the Medicaid law. Efforts to appropriately or realistically measure the quality of what is provided to children are almost nonexistent in the state programs.

There are major unresolved issues of how best to get outreach medical services to poor and low-income, primarily minority families. The previously mentioned problems of poverty, cultural diversity, and change in family structure are part of these issues. In addition, social welfare services are often essential in addressing some of the socioeconomic factors that contribute to illness in these children.

Child protective services, foster care, food supplementation programs, housing assistance, cash payments under AFDC, all are part of the medical therapeutic armamentarium in caring for these children. If they are not available, medical expenditures for illnesses that occur in these children will be increased; under managed care it will be very hard for providers to maintain solvency under their contracts without either reducing quantity or quality of services.

To the extent that welfare reform reduces some of these services in an effort to address the very real problems of the welfare system, it will have direct adverse consequences for health providers who are responsible for Medicaid-managed capitated programs. I believe this will be a particularly urgent problem for the academic health centers.

It is difficult to end on an upbeat note. There is, however, among business, professional, and community leaders at local

levels, a growing awareness of the disaster we face as a nation in the near future for not addressing the severe social, health, and educational problems of children today. At this level, community coalitions with child advocacy groups are developing. I am optimistic that this activity will crystallize into political will and eventually, hopefully, political leadership.

Suggested Reading

1. Lewit EM, Monheit AC. Expenditures on health care for children. *The Future of Children.* 1992;2(2):95
2. Starfield B. Child and adolescent health status measures. *The Future of Children.* 1992;2(2):25
3. Monheit AC, Cunningham PJ. Children without health insurance. *The Future of Children.* 1992;2(2):151
4. Lewit EM. Why is poverty increasing among children? *The Future of Children.* 1993;3(2):1993
5. Lewit EM, Baker LS. Race and ethnicity—changes for children. *The Future of Children.* 1994;4(3):1994
6. Lewit EM, Baker LS, Corman H, Shiono PH. The direct cost of low birthweight. *The Future of Children.* 1995;5(1):35